

## **ABSTRACT**

*All radio communication systems both for fixed and also cellular always have antenna. Antenna is the matching device between intrinsic impedance of propagation room ( $377\Omega$ ) with characteristic impedance of transmission channel ( $50\Omega$ ) and conversely. Transmission channel as medium of electromagnetic wave guided, while electromagnetic wave of free space transmit at dielectric of air.*

*In this final project had been realized a Omni-Pancasilang Binomial Wide Band antenna with the radiation pattern is omni directional and ellips polarization and the form of antenna is five angles which appropriate with specification had been arranged. This antenna use principle of  $\frac{1}{4}$  binomial for matching between free space impedance with the impedance of transmission channel (coaxial channel).*

*Specification of this antenna from measurement test is bandwidth 1441 MHz with  $V_{SWR} \leq 1,5$  frequency 1550 – 2991 MHz, gain 9,97 dBi at frequency 1786,97 MHz (frequency with  $V_{SWR}$  minimum), radiation pattern is omni directional and ellips polarization.*